



## PATENT ABSTRACTS OF JAPAN

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(57) Abstract:

**PURPOSE:** To detect an outer shape of an object clearly, by detecting a corner where two ridge lines of an object to be recognized are crossed at a ridge line detecting circuit.

**CONSTITUTION:** The object 1 to be recognized, e.g., a rectangular parallelepiped is placed on an XY stage 8 and illuminated from inclined upper right with a lamp of an illumination system 2, bright lines reflected on four ridge lines on the upper surface of the rectangular parallelepiped are image picked up 3, a bright line signal is binary-coded by an image pickup system 3 and detected 5, and the position of the object 1 is made clear. When the bright line is too weak to be detected, an illumination control mechanism 7 is driven with a control circuit 6. When one lamp is used, the lamp is moved along a circular rail, and when many lamps with different illumination angle exist, the lamp power supply is switched and only one lamp is lighted alternately. Thus, illuminance is increased and the signal is sliced with floating by a pre-processing circuit 4 for attaining binary coding.

